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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,817	10/23/2007	Mark Andreas Mielke	33148.00522.US01	3626

13772 7590 01/04/2012  
McKenna Long & Aldridge LLP  
1900 K Street NW  
Washington, DC 20006

EXAMINER
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WOODWARD, ANA LUCRECIA

ART UNIT	PAPER NUMBER
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1765

MAIL DATE	DELIVERY MODE
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01/04/2012

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/579,817	MIELKE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ana Woodward	1765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-11,13,14,16-24,26,28-36,38,39,41-49,51 and 53-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-11, 13, 14, 16-24, 26, 28-36, 38, 39, 41-49, 51 and 53-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>July 13, 2011</u>   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of ketone-formaldehyde copolymer as the polymer species, metal orthoester as the metal complex species and alkyl phosphate as the alkyl phosphate species in the reply filed on July 28, 2010 is acknowledged.

### ***Claim Rejections - 35 USC § 112***

2. Claims 1, 3-11, 13, 14, 16-24, 26, 28-36, 38, 39, 41-49, 51 and 53-61 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification, as originally filed, fails to describe how to make a ketone-formaldehyde copolymer having (pendant and/or terminal) carboxyl groups.

3. Claims 1, 3-11, 13, 14, 16-24, 26, 28-36, 38, 39, 41-49, 51 and 53-61 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 4, it is unclear if or how the recitation to "**a** group consisting of", as opposed to "the group consisting of", is to limit the claimed subject matter.

In claims 13, 26, 38 and 51, it is unclear if or how the recitation "said one or more polymers including a ketone-formaldehyde copolymer" limits the claimed subject matter.

In particular, it is not apparent if or how a ketone-formaldehyde copolymer can be definitive of a polymer having carboxyl groups, that is, a carboxylated polymer.

Claim 19 is indefinite for depending upon a cancelled claim.

***Claim Rejections - 35 USC § 102/103***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and 3-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japanese 10-067959.

Japanese '959 discloses printing ink compositions comprising

(A) a pigment,

(B) a hydroxyl group-containing resin (reading on the presently claimed polymer),

(C) a titanium-based crosslinking agent comprising a reaction product obtained by reacting (i) a titanate compound (reading on the presently claimed metal orthoester) with (ii) a phosphate compound (reading on the presently claimed alkyl phosphate), and  
(D) an organic solvent.

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Preferred hydroxyl group-containing polymers include polyurethanes and other binder resins [0022]. As the other binder resins, acrylic resins, polyester resins and ketone resins can be used [0051]. Exemplified compounds (i) include tetraisopropyltitanate, per present claim 6, and exemplified compounds (ii) include dialkyl phosphate having formula P6 [0076], per present claim 7.

The disclosure of the reference meets the requirements of the present claims in terms of the types of materials added. It is reasonably believed that reaction product of the polymer with the titanium-crosslinking agent would engender a product which is the same as that presently claimed. The onus is shifted to applicants to establish that the product of the present claims is not the same as or obvious from that set forth by the reference.

***Claim Rejections - 35 USC § 103***

7. Claims 13, 14, 16-24, 26, 28-36, 38, 39, 41-49, 51 and 53-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese 10-067959, described hereinabove, in view of U.S. 5,985,987 (Adolfsson et al).

In essence, the disclosure of JP '959 differs from the above-rejected claims in not expressly disclosing a ketone-formaldehyde copolymer. It is noted, however, that it is within the scope of the reference's inventive scope to employ ketone resins as the binder resin component [0051]. Given that the use of ketone-formaldehyde copolymer binder resins in similar-such printing ink compositions is well known in the art, as disclosed by Adolfsson et al, and that "ketone resins" implicitly include ketone-formaldehyde copolymers, it would have been within the purview of one having ordinary

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skill in the art and obvious to have employed a well known ketone-formaldehyde binder resin in the composition of JP '959, with the reasonable expectation of success. In this regard, it is noted that Adolfsson et al teach as suitable binder components, ketone aldehyde, ketone and/or aldehyde resins. Accordingly, absent evidence of unusual or unexpected results, no patentability can be seen in the presently claimed subject matter.

As to method claims 38 and 51, the introductory phrases, "a method of improving the adhesion performance" and "a method of stabilizing the viscosity" do not serve to patentably distinguish the claimed processes from that of the reference. This language, in effect, simply states the result of adding the reaction product to the coating composition. While the reference may not show a specific recognition of these results, their discovery by applicants is tantamount only to finding a property of an old composition. Such recognition does not impart patentability to an otherwise old composition.

### ***Response to Arguments***

8. Applicant's arguments filed December 07, 2011 have been fully considered but they are not persuasive.

It is maintained that the specification fails to describe or teach how to prepare a ketone-formaldehyde copolymer having carboxyl groups. The use of the Degussa synthetic resin in Example 1A does not cure this deficiency in that there is no indication that said resin would possess carboxyl groups.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana Woodward whose telephone number is (571)272-1082. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ana Woodward/  
Primary Examiner  
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